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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,797	10/11/2001	Michael L. Walker	194-15337CIP	9540

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EXAMINER

TUCKER, PHILIP C

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

975797

Applicant(s)

WALKER

Examiner

P. TUCKER

Group Art Unit

1712

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 3-13, 15-24 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 3-13, 15-22, 24 is/are rejected.
- ☒ Claim(s) 23 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2,3
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Claim Objections

1. Claims 9 and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 9 and 21 fail to further limit the scope of parent claims 1 and 13, respectively.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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3. Claims 1, 3-5, 9, 10, 13, 15-17, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (4836941).

Thomas teaches zinc halide and calcium halide brines having densities within the scope of the present invention, wherein amine salts and ammonium salts are used as corrosion inhibitors (see example 2 and Table V). The present invention is thus anticipated by Thomas.

4. Claims 1, 3, 6, 9-13, 15, 18, 21, 22 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Mishra et al. (5891225).

Mishra teaches a brine which comprises a halide salt, such as calcium chloride at levels of up to 42 weight percent (see claim 3 and examples), wherein a hydroxy carboxylate and polyalkoxylated amine are used as corrosion inhibitors (see claims 1 and 2). A brine level of 42% by weight would clearly be greater than the 11 lbs/gal taught in the claims.

5. Claims 1, 3, 6, 8, 9, 12, 13, 15, 18, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Beazley et al. (5935487).

Beazley teaches a brine which comprises calcium chloride, and a corrosion inhibitor of a diethanolamide product (see claims 1-4). Beazley exemplifies calcium chloride brines comprising 35 weight percent of the salt, which would clearly have greater than 11 lbs/gal density.

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 6-8, 10, 12, 13, 15, 18-20, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (5846450).

Atkinson teaches a brine which comprises formates, such as potassium formate, and which can further comprise water, ammonia and corrosion inhibitors (see claims 4-8). The levels of as high as 70% potassium formate would result in brines within the density level of greater than 11 lbs/gal. Atkinson teaches that combinations of water and ammonia may be used as the solvent (claim 5). Atkinson differs in that a combination of water and ammonia as the solvent is not disclosed in an example. However, it would be obvious to vary the amount of ammonia and water as a combination solvent, including within the concentration ranges of the present invention, in the invention of Atkinson, given the teaching of Atkinson that such combinations may be used as solvents, and may be used to provide specific refrigerant vapor (column 3, lines 42-47).

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8. Claims 1, 3, 6, 9, 10, 12, 13, 15, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-199278 A.

JP 63-199278 teaches a heavy brine of calcium chloride which comprises ethylene diamine and/or diethylene triamine as corrosion inhibitors. JP '278 exemplifies the use of such corrosion inhibitors in brines of 29.9% calcium chloride, which are approximately 10.8 Lbs/gal brines. JP '278 differs from the present invention in that brines as high as 11 Lbs/gal density are not disclosed. It would be obvious to one of ordinary skill in the art to utilize the corrosion inhibitors of JP '278 in brines of 11 Lbs/gal density, since such brines would be expected to have similar corrosive properties with brines of extremely close density, such as of 10.8 Lbs/gal.

9. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

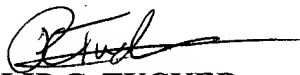
10. Applicants arguments have been considered, but are not deemed fully persuasive.

Contrary to applicants arguments Mishra and Beazley both teach brines having a density within the specified levels of the present invention. New rejections are presented under 35 USC 102 and 103.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tucker whose telephone number is (703) 308-0529. The examiner's normal working hours are 7:30am-4:00pm, Monday-Friday. If necessary SPE Robert Dawson may be contacted at 703-308-2340. For inquiries of a general nature call the receptionist at 703-308-0651. The group FAX no. is 703-872-9310. The **after final** fax no. Is 703-872-9311.

PCT-2809
May 19, 2003


PHILIP C. TUCKER
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